

**FINAL REPORT OF INVESTIGATION**

**SMS 20120703 OCAT#11100**

<b>Date of Event:</b>	July 3, 2012
<b>Type of Event:</b>	Train Evacuation
<b>Incident Time:</b>	17:49 hrs.
<b>Location:</b>	Between E08 and E09 – CM E1 522+00
<b>Time and How received by SAFE:</b>	On-Call Safety Officer
<b>Safety Officer Response:</b>	SAFE Rail Safety On-Call to scene/ [REDACTED]
<b>Time of Safety Officer Arrival:</b>	Notified 1757 hrs.; Arrived 1819 hrs.
<b>Time of Safety Officer Departure:</b>	2005 hrs.

**Weather:** (Source Weather Underground for Washington, DC)

Time of Report: 1750 hrs.

Temperature: 93 degrees F

Dew Point: 53.2 degrees F

Humidity: 26%

Pressure: 29.89 in

Conditions: Calm

**Employee:** Operator [REDACTED] – Train #502

**Seniority Date:**

Operator [REDACTED] – Recovery Train #503

**Seniority Date:**

**Metrobus/Consist/Vehicle:** Train #502 – 6042/43, 1150/51, 6122/23

Recovery Train #503 – 5048/49, 1244/45, 5112/13

**Injuries:** 1 – report of a minor injury – Twisted Ankle

**Property Damage:** None

**Emergency Response:** MTPD, Prince Georges Fire Department (PGFD), OEM, CMNT, RTRA, SAFE, TRST, Power

**Notification:**

Title	Time	Comment:
Tri-State Oversight Committee - TOC	1845	Phone Call to [REDACTED] (Voicemail Message Left) – Phone Back within 2-minutes
FTA		
NTSB		
OSHA		
EPA		
Other		

**Executive Summary**

On July 3, 2012 the Train Operator of Train #502 reported to the Rail Operations Control Center (ROCC) that [REDACTED] had low brake pipe pressure. The operator then reported that [REDACTED] had "White Lights" throughout the consist. This indicates that the train had gone into Emergency Braking.

Rail Operations instructed train #503 to offload at Prince George Plaza and prepare to recover train #502.

Train #503 approached under a permissive block and became unable to move at CM E1 505+00.

The Operator of Train #502 reported that the passengers were opening the Emergency Doors to exit the train. Rail Operations control requested the 3<sup>rd</sup> Rail Power de-energized on track 1 due to a Remote Terminal Unit (RTU) that was out of service.

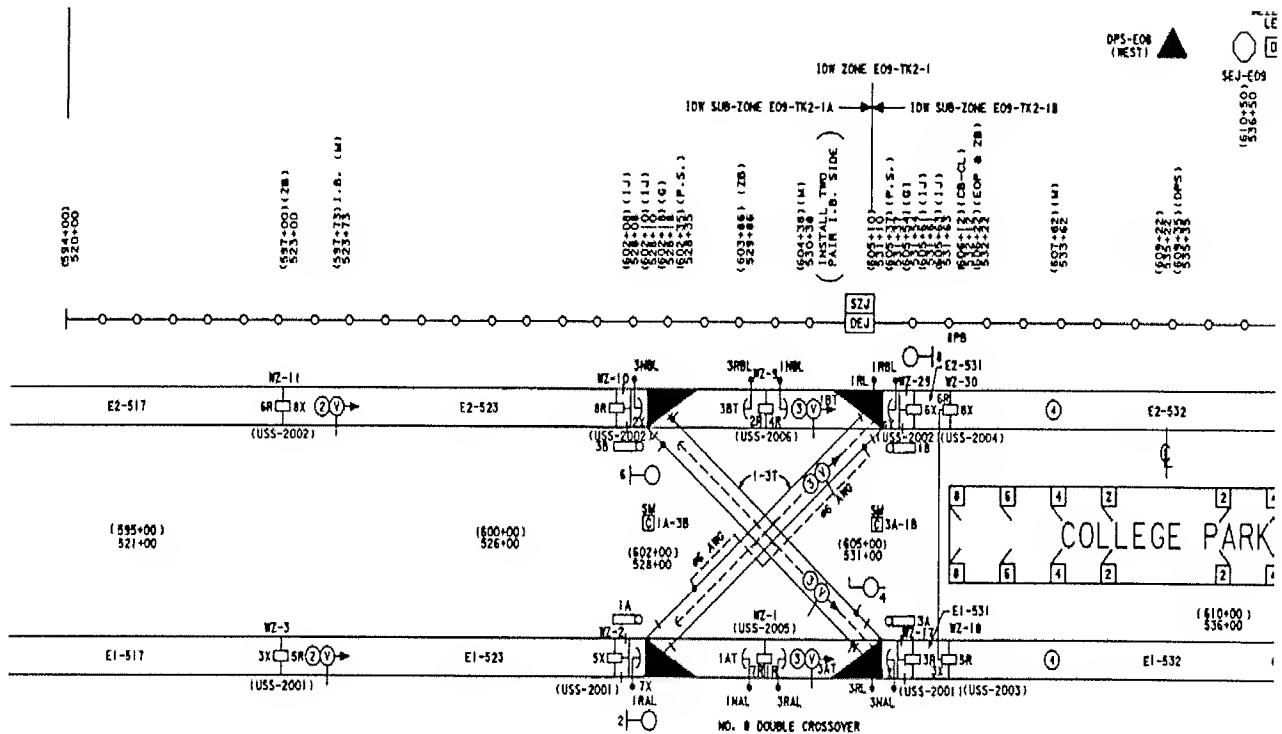
There was one (1) minor injury reported that was transported to Prince Georges Hospital. The individual left the hospital prior to treatment when questioned about their submitted identification.

There was a service disruption of one (1) hour and 58 minutes.

## Incident Site

The incident site is straight Tangent track with a slight descending grade toward the College Park Station.

## Field Sketch/Schematics



## Investigation

- There were reports from Rail Transportation that there was bad radio communications between E08 and E09 from trains and handset to ROCC.
  - Further investigation by Engineering found that a power failure in the building that houses our radio transmitter caused by the Derecho Storm caused the problem.
- The Remote Terminal Unit (RTU) issue was found to be an Informational Technology issue that was fixed internally.
  - This RTU provides remote monitoring capability of the Third Rail system in the area. Had the RTU been working the ROCC would

have been able to see the failure and would have stopped trains clear of the area.

- The Federal Railroad Administration Event Recorder(FRA), Data Acquisition Module "A"(DAMA) and Data Acquisition Module "B" (DAMB) from cars 6122-23 were examined. There was nothing found to indicate any failure of the vehicles.

### **Findings / Analysis**

- Train #502 was moving along without incident when it started to slow.
  - The battery voltage began to drop
  - The train came to a complete stop
  - Once stopped the emergency brake relay de-energized and the white light relay de-energized indicating that the train had gone into emergency
- At 1930 hrs the third rail power was restored.
  - The Emergency Brake Release (EBR) and the White Light Relay (WLR) energized
  - Battery voltage increased
  - Vehicle Monitoring Systems (VMS) indicates that the train was moving
  - The train responded as reported with no indication of any malfunction on the train

### **Timeline:**

1749 hrs.	Operator Train #502 reported that the train had gone into Emergency
1757 hrs.	Operator Train #502 reports there are white lights throughout the consist. The train was located at CM E1 514+00
1806 hrs.	MTPD Officers are dispatched to the location for a disabled train
1809 hrs.	ROCC instructed the Operator of Train #503 to offload at PG Plaza and prepare to recover Train #502
1812 hrs.	Train #503 is given permissive block to within 10-feet of the disabled train (#502)
1814 hrs.	Train #503 reports the train is unable to move at CM E1 505+00
1822 hrs.	Train #502 Operator reports that customers are self evacuating from the train. MTPD estimate approximately 200 patrons were evacuated from Train #502 via the Roadway to the platform with the assistance of PGFD

1824 hrs. Third Rail power to Track E1 is de-energized due to customers on the roadway  
1838 hrs. Third Rail power is de-energized to Track E2  
1846 hrs. MTPD verify that all customers are rescued from the train  
1923 hrs. Power is restored to all tracks  
1947 hrs. Rail Service resumes

### **Conclusion**

The probable cause of this incident was the momentary loss of both Pepco feeders to the Traction Power Sub-station. (Both incoming line breakers were open)

A contributing factor was a Remote Terminal Unit (RTU) that had been out of service since the major lighting/weather event that passed through the area on the night of June 29, 2012. This prevented the Rail Operations Control Center from seeing the current state of third rail power in the area.

### **Mitigation to Prevent Re-Occurrence**

- The existing procedures used by the Power Group shall be revised to include stand-by crews located in the area of any RTU failure to provide for a quicker response to incidents.
- Radio Communications in the area shall be checked for any variations from the normal conditions.
- A general practice has been implemented in the ROCC with regard to response to Power Related issues. The ROCC controllers have been instructed to notify MTPD within 5-minutes to expedite response to the incident location. (SOP4 & SOP4A are being reviewed for possible revision at this time.)

**Photos** - There are no photos of this incident.

**Video** - The video footage from the platform camera does not show the incident train. It does show passengers coming up onto the platform from the E1 side of the Roadway.